

Appl. No.: 09/418,418
Amdt. dated April 19, 2004
Reply to Office action of February 9, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

81
1. (Currently amended) A computer-implemented method for searching a large number of hypertext documents in accordance with a search query, comprising:

~~determining which of the hypertext documents are forming a set of expert documents from the set of all hypertext documents crawled~~ without reference to the search query;

ranking the expert documents in accordance with the search query;

ranking target documents pointed to by the ranked expert documents; and

returning a results list based on the ranked target documents.

2. (Original) The computer-implemented method of claim 1, wherein the hypertext documents are pages in the world wide web.

3. (Original) The computer-implemented method of claim 1, wherein the hypertext documents are sites in the world wide web.

4. (Original) The computer-implemented method of claim 1, wherein the hypertext documents are documents in a hypertext database.

5. (Original) The computer-implemented method of claim 1, wherein an expert reverse index is constructed in memory for keywords appearing in the expert documents, the expert reverse index identifying the location of the keywords in the expert documents.

6. (Original) The computer-implemented method of claim 5, wherein a keyword of an expert document is included in the expert reverse index if the

Appl. No.: 09/418,418
Amdt. dated April 19, 2004
Reply to Office action of February 9, 2004

81
keyword is part of a key phrase that qualifies at least one URL in the expert document.

7. (Original) The computer-implemented method of claim 6, wherein a key phrase qualifies a URL if the URL is within the scope of the key phrase in the expert document.

8. (Original) The computer-implemented method of claim 6, wherein a key phrase in an HTML title qualifies all URLs in the entire document.

9. (Original) The computer-implemented method of claim 6, wherein a key phrase in an HTML heading qualifies all URLs in that portion of the document before a next HTML heading in the document of greater or equal importance.

10. (Original) The computer-implemented method of claim 6, wherein a key phrase in an HTML anchor qualifies the URLs in the anchor.

11. (Currently amended) The computer-implemented method of claim 1, wherein ~~determining which of the hypertext documents are~~forming a set of expert documents includes:

determining a document having at least a predetermined number of outlinks to be an expert document if the document also points to at least the predetermined number of targets on distinct non-affiliated hosts.

12. (Original) The computer-implemented method of claim 11, wherein expert documents additionally must point to documents that share the same broad classification.

13. (Canceled).

Appl. No.: 09/418,418
Amdt. dated April 19, 2004
Reply to Office action of February 9, 2004

E1
14. (Original) The computer-implemented method of claim 1, wherein ranking target documents pointed to by the expert documents includes:

determining a plurality of edge scores for each target document, where an edge score is determined for edges between the expert documents and the target document;

determining a target score in accordance with the edge scores of the target document;

ranking the target documents in accordance with the target scores.

15. (Currently amended) The computer-implemented method of claim 14, further including:

determining an edge score only for those links to the target document from a predetermined number of ~~top-ranked~~ ranked expert documents.

16. (Original) The computer-implemented method of claim 14, further including selecting target documents to be ranked that are linked to by at least two mutually non-affiliated selected expert documents, where the selected target also is not affiliated with the expert documents.

17. (Original) The computer-implemented method of claim 14, where an edge score between an expert document and a target document $ES(E,T)$ is determined as follows, where ExpertScore reflects the rankings of the expert documents:

- a) find #occurrences of each keyword in all keyphrases of expert document E
- b) if the #occurrences for any keyword in E is 0: $ES(E,T)=0$
else $ES(E,T)=\text{ExpertScore}(E) * \text{sum of \#occurrences for all keywords.}$

18. (Original) The computer-implemented method of claim 14, wherein, if two affiliated experts have edges to the same target, the edge having a lower edge score is discarded and is not used to determine the target score.

81
Appl. No.: 09/418,418
Amdt. dated April 19, 2004
Reply to Office action of February 9, 2004

19. (Currently amended) The computer-implemented method of claim 18, wherein two hypertext documents are affiliated if at least one of the following is true: 1) they share the same rightmost non-generic suffix and 2) they have an IP address in common.

20. (Currently amended) An apparatus that searches a large number of hypertext documents in accordance with a search query, comprising:

- a software portion configured to ~~determine which of the hypertext documents are~~ form a set of expert documents from the set of all documents crawled without reference to the search query;
- a software portion configured to rank the expert documents in accordance with the search query;
- a software portion configured to rank target documents pointed to by the ranked expert documents; and
- a software portion configured to return a results list based on the ranked target documents.

21. (Currently amended) A computer program product, comprising:

- a computer usable medium having computer readable instructions stored therein to search a large number of hypertext documents in accordance with a search query, including:
 - computer readable program code devices for causing a computer to ~~determine which of the hypertext documents are~~ form a set of expert documents from the set of all documents crawled without reference to the search query;
 - computer readable program code devices for causing a computer to rank the expert documents in accordance with the search query;
 - computer readable program code devices for causing a computer to rank target documents pointed to by the ranked expert documents; and

Appl. No.: 09/418,418
Amdt. dated April 19, 2004
Reply to Office action of February 9, 2004

E1

computer readable program code devices for causing a computer to
return a results list based on the ranked target documents.

22. (Previously presented) The computer-implemented method of claim 1,
wherein ranking the expert documents in accordance with the search query
comprises:

- determining a level score for each of the expert documents;
- determining a fullness factor for each key phrase on each of the expert
documents; and
- determining an expert score for each expert document in accordance with
the level score of the expert document and the fullness factors for
the key phrases of the expert document.

23. (Currently amended) The computer-implemented method of claim 1,
~~wherein determining which of the hypertext documents are forming a set of expert~~
documents occurs before a search query is received.